

Communication Barrier, Bridging the Gap between the Biloxi Fire Department and Non-English

Speaking Residents

Kirk Noffsinger

Biloxi Fire Department, Biloxi Mississippi

**CERTIFICATION STATEMENT**

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

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### Abstract

Throughout its history, the City of Biloxi has continuously served as a destination point for immigrants searching for employment and better opportunities. In the aftermath of Hurricane Katrina in August 29, 2005, the City of Biloxi experienced a large influx of Spanish-speaking residents which began with the arrival of migrant construction workers providing manpower and other valuable resources for the rebuilding of the community. Many of these workers subsequently brought their families and established residence in the area. Yet, this ever-growing Hispanic population is not the first wave of immigrants to recently call the city home. Shortly after the end of the Vietnam Conflict, a large Vietnamese population moved into the area. The combination of these two cultures consequently yields a number of people who cannot speak English.

The problem is the Biloxi Fire Department has no multi-lingual risk reduction material written for the non-English speaking community. The purpose of this research is to develop risk reduction material written specifically for this community. By utilizing descriptive methodology, the author will answer the following questions: a) What risk reduction written materials does the Biloxi Fire Department currently have? b) What primary languages are represented in the City of Biloxi? c) What translation resources are available? and d) What multi-lingual risk reduction written materials can be made available to the non-English speaking community?

To answer these questions, the author conducted an extensive literature review, internet search, and distributed questionnaires to Biloxi Fire Department members and other fire departments throughout the United States. Interviews were conducted with City of Biloxi Emergency Management personnel, Biloxi Police Department administrators, and dispatch supervisors.

The findings revealed that as a department and a city, we are lacking in effective communication methods with non-English speaking residents, and our personnel are not adequately prepared to deal with the obstacles associated with existing communication barriers. It is evident, therefore, that the Biloxi Fire Department should place more emphasis on hiring bilingual employees, providing language training programs for employees, and purchasing safety/general informational documents written in other languages, such as Spanish and Vietnamese.

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### Introduction

All along the Mississippi Gulf Coast there has been a steady rise in the non-English speaking population. “The 2000 census showed 1,304 Puerto Ricans in Harrison, Hancock and Jackson counties... That’s an increase of almost 138 percent” (Harris, 2011, para. 3). Not only has there been an increase in the Hispanic population, but also in the Cuban and Chinese populations as well, with the Chinese showing the largest percentage increase by sixty percent. With many of these immigrants now residing in the city, the Biloxi Fire Department (BFD) has become acutely aware of the communication gap that exists with non-English speaking residents and visitors. This language barrier presents multiple challenges for the department, particularly when dealing with emergency and non-emergency situations, and it is further hindered by the fact that the BFD does not currently provide multi-lingual risk reduction written materials. Many new residents are not provided with the same basic risk reduction resources that English speaking residents have because the materials, such as basic home fire safety flyers, smoke detector awareness, and other pamphlets, are printed only in English. Furthermore, many non-English speaking residents do not receive any safety training because their activities tend to focus primarily on group culture and native language.

The purpose of this research is to identify multi-lingual risk reduction written materials that can be used for the non-English speaking community. Descriptive research methodology will be utilized to answer the following questions: a) What risk reduction written materials does the Biloxi Fire Department currently have? b) What primary languages are represented in the City of Biloxi? c) What translation resources are available? and d) What multi-lingual risk reduction written materials can be made available to the community?

An extensive literature review was performed, questionnaires were submitted to fire departments throughout the country as well as City of Biloxi public safety employees, and interviews were conducted with communications supervisors. The interviews and questionnaires with city employees were done in an effort to identify any programs currently in place that would assist in developing communication methods with non-English speaking residents.

### Background and Significance

The City of Biloxi is located in the extreme southern part of Harrison County, Mississippi along the gulf coast. It is the third largest city in Mississippi, with a total population of 46,909 (U.S. Census Bureau website, 2005-2009) and a land mass encompassing approximately 62 square miles. Because Biloxi is home to eight casinos (with more in the construction phase) and Keesler Air Force Base, the city's population can double at any given time. Settled in 1699, Biloxi was incorporated as a town in 1850 and presently operates under the leadership of a strong Mayor-Council form of government. Biloxi possesses a very rich and diverse cultural heritage, and throughout its history has been the regional focal point for a thriving tourist industry, attracting visitors from all walks of life.

Named after the Native American tribe that used the area as hunting grounds, Biloxi's long and colorful history has been interwoven with people from diverse cultures and occupations. Beginning with the establishment of a bountiful seafood industry in the mid 1800's and progressing to its current status as a gaming and resort destination area, Biloxi has always attracted people from many different cultures and nationalities. Initially, Bohemian migrant workers were transported to Biloxi from Baltimore via train boxcar. Later, Slavic nationalists arrived from the Dalmatian Coast in the 1800s to 1900s. More recently, after the Vietnam Conflict ended, Vietnamese refugees arrived and easily adapted to working the fishing fleets of

Biloxi as they had done in their homeland. Within the last several years, hundreds of Spanish and Mexican workers came to the city seeking construction employment after the devastating impact of Hurricane Katrina in 2005.

Most of these immigrants left their own countries because of poverty or persecution and often arrived with families and friends, bringing their own specific culture, religious beliefs, and native language. Many spoke little or no English, and the ensuing language barrier contributed to the formation of small, ethnic communities throughout the city. Even after these settlers eventually learned English, they still preserved their native language, enduring racial prejudice as well as cultural and language barriers.

Biloxi's population declined dramatically after Hurricane Katrina hit in August of 2005. A number of people who evacuated for the storm or had lost homes, never returned to the city. Before the impact of this devastating storm the city had approximately 54,000 residents and Vietnamese residents comprised the majority of the non-English speaking community. After August of 2005, the population dropped significantly to 46,909 (U.S. Census Bureau website, 2005-2009). Even though the data provided by the Census Bureau shows a decrease in overall population in the City of Biloxi, the Hispanic/Latino population increased by 2.3% in that time.

Based on the United States Census Bureau 2005–2009 data, 8% of the people living in Biloxi were foreign-born. The majority of the population (92%) was native-born, including 48% who were born in Mississippi (U.S. Census Bureau website, 2005-2009). The data also showed that 11% of residents at least five years of age spoke a language other than English at home, mainly Spanish and Vietnamese. Of those speaking a language other than English at home, 41% reported that they did not speak English “very well” (U.S. Census Bureau website, 2005-2009). From these statistics, one can see how natural disasters can play a role in population shifts over



time. Nonetheless, other factors have also contributed to the shifting cultural dynamics of the region.

The physical demographics of Biloxi have remained somewhat constant throughout its 300 plus year history. Because the city is situated on a peninsula between the Biloxi Bay and the Mississippi Sound, the landscape has been naturally beneficial to the growth of the seafood industry. Historically, the East End and Back Bay areas of the city were settled by foreign migrant workers who worked on the boats and in the seafood factories. Over time, geographical growth and reconstruction changes have led to more locations within the city where non-English speaking residents have established their cultural roots. Because of this steady growth of cultural diversity, the public safety section now faces specific challenges. Not only does a very evident language barrier exist, but preconceived cultural perceptions of police and fire personnel do as well. The fire department's primary focus has always been to provide life-safety protection to citizens as efficiently and effectively as possible. It is crucial, therefore, that we address the needs of non-English speaking residents and work towards a mutual communication resolution.

The Biloxi Fire Department (BFD) was initially formed, as historically most departments throughout the United States were, as an all-volunteer department to provide protection to its citizens. The BFD has grown from an all-volunteer department to its current status as an all-career department consisting of four divisions: Administration, Operations, Training, and Fire Prevention, with nine fire stations and 178 employees. The organization has grown from providing fire suppression only, to what can be termed as an all-hazards department. In 2010, the BFD responded to over 7,000 calls for service; over 75% of those calls were medical emergencies. The increasing number of incidents stresses the importance of community awareness in issues of life safety.

The department's Fire Prevention Division is tasked with providing fire safety training and risk reduction materials to the citizens of Biloxi; yet most, if not all, of these items are printed in English only. Moreover, many of the programs provided by Fire Prevention are not being utilized by the Spanish or Vietnamese communities primarily because of the language barrier. There are very few BFD employees who speak another language besides English, and those who do speak other languages are either not readily identified or utilized effectively in emergency incidents involving non-English speaking individuals.

The increase in the number of Hispanics who speak no English only serves to underscore the necessity for the BFD to focus on the specific needs of these citizens. One of the five operational objectives set down by the United States Fire Administration is to "appropriately respond in timely manner to emergent issues" (United States Fire Administration, 2009, p. 1-7). One of the main objectives of the BFD is to provide the best service possible to citizens and visitors alike, but we cannot provide these services unless we can efficiently interact and communicate with all citizens. In line with the USFA's goals, the primary purpose of the EACRR is to empower the Executive Fire Officer (EFO) with the ability to lead community risk reduction in a strategic manner (United States Fire Administration, 2011, p. 1-7). Unit 2, Assessing Community Risk, points out that risk assessment is a multistep process, and the first step is to analyze the community and the risks associated with its people. Timely and effective emergency response is based on initial communication, which again, emphasizes the importance of establishing effective communications with Biloxi's non-English speaking residents.

### Literature Review

A great deal of research has been conducted relating to the challenges of communication barriers encountered by the public safety sector. The research has covered a wide range of

communication issues, from communicating with the hearing impaired to someone who does not speak English. No matter what the language barrier is, an emergency incident is not the time to try to overcome that obstacle. Although some of the results from previous research may now be considered outdated, much of the findings would still apply today.

Non-English speakers have been defined as those who speak a language other than English at home (Cavanagh & Malia, n.d., para. 1). The 2010 census showed a 109% increase from the 2000 census in the Hispanic or Latino population between the three coastal counties of Mississippi. The report noted that 11% of Biloxi's population speaks a language other than English at home. Of this portion, 43% speak Spanish and the other 57% speak other languages.

Research has not only identified language as an issue, but cultural and religious beliefs as well, presenting cumulative roadblocks to providing safety awareness. Consequently, there is a greater need for fire departments serving ethnically diverse communities to understand the specific culture of each group (Grant & Hoover, 1994, p. 59).

Some of the more recent immigrants to Biloxi looking for work and better opportunities are young adults, and they can speak English well. They are often accompanied, however, by older relatives who only have a limited command of English; individuals who are considered "linguistically isolated". Some analysts assert that this type of isolation prevents people from assimilating fully into American society and hinder activities like grocery shopping or communicating with police or fire officials (Associated Press, 2003, p. 1). One factor associated with linguistically isolated individuals that has been observed throughout the country, is that they tend to live in neighborhoods largely populated by others who speak the same language and have the same cultural beliefs.

As an example of cultural effects, Lujan (2009) noted that the metaparadigms of Hispanic culture were conceptualized by Tinto in 1987 as unique beliefs that are held by individuals who self-identify with the Hispanic culture (p. 6). These cultural beliefs are so powerful that they impact every facet of the person's life, and these beliefs are transferred from one generation to the next. The principle of collectivism is based on the tenet that the needs of the community come before those of the individual. Other beliefs such as familism and personalism are just as powerful to the individual and will have an effect on how the person reacts during a crisis situation. Although these cultural paradigms were associated with the Hispanic community, one can surmise that these would also apply to other non-English speaking groups.

Even though these residents feel safe and comfortable in their small communities, seclusion from the outside world can be dangerous. A striking example of this danger occurred when Hurricane Katrina hit the coastal regions of Mississippi, Alabama, and Louisiana. Most non-English speaking residents were caught off-guard and thus unprepared. "About 300,000 Latino and Vietnamese people had little to no advance warning that this country's worst natural disaster in recent history was at their doorstep" ("Emergency information", 2010, para. 3). There are many other instances throughout the United States where ethnic communities tried to handle emergency situations without outside assistance. A row house fire in Pennsylvania, in which members of the family tried to extinguish the fire, led to the death of two young children and injured many others. In this incident, officials believed that cultural issues, such as a distrust of the government, were a probable factor for the delay in notifying emergency services.

Various cities, states, and even private businesses nationwide have endeavored to identify and deal with cultural communication issues. Interviews with leaders of various ethnic communities provided some important insight on why overcoming these barriers has been so

difficult. One study concluded that “specifically, the leaders believe that the Spanish-speaking citizens do not understand the fire safe message transmitted from the fire agencies whose primary language and culture is English based” (Monterey County Fire Chiefs Association [MCFCA], 2001, p. 1). There is also the perception that fire agencies in general display little understanding of, and thus may appear apathetic to, the Spanish-speaking culture. Furthermore, members of ethnic communities frequently voice concerns over the issue of “trust”. “Within the Hispanic community, it’s common to find people who may not trust, either because they may not know enough, or they may think this has something to do with immigration” (Coronado, 2008, para. 3). These and other factors all contribute to having a negative impact on effective communication between the public safety sector and the non-English speaking population.

A recent clinic on cultural competency was hosted by nonprofit organizations in an effort to provide more ethnic awareness to coastal agencies. The speaker, Doctor Dung Ngo, a mental-health practitioner and professor at the University of Texas, spoke of the importance of identifying social perceptions of the Vietnamese culture. “To work with a culturally diverse population it is important to understand the cultural variables and historic influences of the population”... “Refugees experienced multiple traumas before arriving in the U.S.” (Loebenberg, 2012, para. 3). Cultural variables, such as a fear of authority, the issue of trust, and an inability to communicate, can all adversely affect the timely dispatch for emergency incidents as well as the reactions of on-scene fire personnel.

Socioeconomic factors also play a key role in fire or emergency incidents. “Virtually every study of Socioeconomic Characteristics has shown that lower levels of income are either directly or indirectly tied to an increased risk of fire” (MCFCA, 2001, p. 2). Locally, residents continue to struggle with the devastating effects that Hurricane Katrina and the BP gulf oil spill

have had on the economy and jobs. There are many areas throughout the City of Biloxi that are considered “low income” neighborhoods, and some of these are populated by non-English speaking residents. “While the characteristics of speaking English “not well” or “not at all” has not been widely studied outside the fire prevention literature, newspaper accounts suggest that language competence can be a factor in fire injuries” (Shai, 2006, p. 151). Non-English speaking residents living in impoverished areas often reside in older or substandard homes. Frequently, there is a correlation between low income housing and the age of the structures. Older structures often have faulty electrical wiring, outdated heating systems, and little or no working smoke detectors, resulting in increased risk of fire.

Yet, the focus of problems associated with non-English residents cannot be on fire incidents alone. Approximately 75% of the nation’s fire service responses are estimated to be Emergency Medical Service (EMS) related. Because no evaluation process is in place to identify what percentage of EMS calls specifically involve non-English speaking residents, research indicates that many of the same dilemmas associated with fire incidents and non-English speaking residents also exist with EMS calls. Again, the language barrier presents specific challenges, and communications with EMS providers becomes difficult at best. Effective operational measures to handle language barriers become even more important with increasing ethnic populations.

Shifts in the population dynamics of the United States are a part of our culture and history (Milkow-Porto, Humphries, Egelson, O’Connell, & Teague, 2004, p. 6). The shifts are steady and have increased over time, impacting not only public safety agencies but school systems as well. For many years now, federal legislation has mandated that school districts establish programs for students whose first language is not English. These students are considered English

language learners (ELLs). There are currently 18 languages represented in Biloxi's school district. Of the approximately 300 English language learners within the district, 70% are Vietnamese, 25% Hispanic, and the remaining 5% Korean, Japanese, Russian, Chinese, or Thai (Milkow-Porto et al., 2004, p. 75). These percentages have more than likely increased due to the large influx of Hispanic immigrants to Biloxi after Hurricane Katrina in 2005.

In addition to researching written material relating to the language barrier, other means of inquiry were conducted for purposes of completing this paper. A departmental questionnaire was utilized to gather data concerning BFD officers and their interactions with non-English speaking residents during emergency and nonemergency situations. Participants included officers from the front-line and from the Fire Prevention Division. All respondents related that they had been involved in situations with non-English speaking residents and/or visitors. The primary difficulty that respondents encountered was a language barrier; a fear of authority figures was reported as the second major obstacle. When asked if they knew of any city assistance programs, most of the respondents marked "no". The few that did mark "yes" made this selection based on their belief that the police department has translators, and the fire department has some personnel who can speak a foreign language. Some of the participants added that, at one time, they had tried to learn another language, but most could not recall much of what had actually been learned. The two languages cited on the questionnaire as primary non-English languages spoken in Biloxi were Spanish and Vietnamese.

A phone interview was also conducted with Ms. Sherri Hokamp, Biloxi Public Safety Dispatch Supervisor, to ascertain what resources were available and being used to assist dispatchers in dealing with non-English speaking callers. Ms. Hokamp identified one resource--the Language Line--which is used on a regular basis. Language Line is provided by a private

company, offering assistance service to public safety agencies when dealing with non-English speaking individuals. “This service can be used during an emergency phone call, and officers can use this service while at the scene.” The City of Biloxi is charged monthly for this service based on usage, which averages about \$300.00 a month. Despite the fact that this service is quite effective, there are still situations in which on-scene emergency personnel need immediate information and cannot wait for a connection via phone to an interpreter.

Further research was conducted in an attempt to locate types of foreign language training that may be available to public safety along the gulf coast, but the author could not find any such training being offered in the immediate area. An Internet search did produce numerous available resources which could be utilized either online or downloaded. There were also sites offering classroom training, but these required personnel to travel or schedule instruction in their local area, thus limiting the number of potential participants due to work schedule conflicts.

Two agencies located in the City of Biloxi have been identified as possible sources of assistance to the BFD with learning new languages and establishing contact with non-English speaking residents: the Catholic Charities Migration and Refugee Center, and the Boat People SOS. Both organizations provide services to non-English speaking residents of Biloxi, principally helping new residents acclimate to their surroundings by offering interpretation, translation, and training services. These agencies could prove to be invaluable to the fire department in the establishment of programs specifically geared towards the city’s special needs communities.

Other fire departments and city governments throughout the United States have implemented many different types of programs in an effort to reach these special needs communities. Some of the programs are based on providing specialized training for first



responders while others focus on training non-English speaking residents in fire and safety awareness. Researchers at the University of Texas at El Paso have created a Communication Card designed to teach monolingual Spanish-speaking individuals who have limited literacy about emergency and disaster preparedness along the US-Mexico border. Soon after experiencing an upsurge in their ethnic population, officials in Louisville, Kentucky discovered that many new non-English speaking residents had never used the 911 system. Consequently, Louisville purchased a new 911 interactive simulator to assist the fire department in training these residents to use the system properly. Firefighters in some departments have even taken matters into their own hands by coming up with tools to assist them at emergency incidents, such as books or cards that list basic phrases in different languages.

Studies reveal that on a national and local level, public safety and other emergency personnel cannot afford to ignore the challenges associated with the ever-growing number of non-English speaking individuals. It is crucial that the specific needs of ethnic communities be identified and addressed. By utilizing available resources and other innovative techniques, the BFD can concentrate on mapping a successful plan to effectively cope with the language barriers in a culturally diverse world.

### Procedures

Research for this project began with a literature review at the Learning Resource Center of the National Fire Academy in Emmitsburg, Maryland. The focus of this search was to locate pertinent information relating to emergency services and non-English speaking residents. A review of past Executive Fire Officer Research papers, books, journals, fire, and emergency services magazine articles provided some recent information. Some of the material was outdated but did provide information that could still be considered relevant to emergency situations today.

Much of the literature that was researched related to the Hispanic population and was believed to be applicable to the project as a whole.

Additional research was conducted utilizing the Internet which provided various websites, papers, and articles that were useful. A search of websites specifically created for different cultures provided a unique view into the dynamics of these groups. Several websites were associated with organizations providing support and assistance to certain ethnic communities. These groups were identified as potential liaison opportunities between new residents and the fire service.

Contact was also made with other local fire and public safety departments in the immediate area that were selected based on their geographic locations (South). Moreover, interviews with various departments within the City of Biloxi were conducted to determine how these divisions handled situations involving non-English speaking individuals. The results provided further data on how effectively the other departments deal with the language barrier issue. Nationwide surveys were created and distributed to other fire departments comparable in land mass and population to the City of Biloxi, while an additional survey was created and distributed to all officers of the Biloxi Fire Department. All surveys were created electronically utilizing a pdf document and returned via email to the author.

Of the 235 emails sent to outside fire departments, only 35 were returned; of the 38 surveys sent to Biloxi Fire Department officers, only 22 completed the survey. Although this constitutes a small number of respondents in both groups, the results provided clear evidence of the increasing number of non-English speaking groups that are making the United States their home and the effect on public safety. It also gives a good indication of how the nation's fire departments are dealing with the language and cultural issues.

## Results

The Biloxi Fire Department's Fire Prevention Division is responsible for coordinating and providing fire safety training and risk reduction materials to the businesses, schools, and residents of Biloxi. Fire safety awareness, training and education are conducted on a yearly basis at all schools located within the city limits of Biloxi. The students are taught fire safety techniques and are provided a multitude of materials covering personal, fire, and home safety. The handouts are geared towards different age groups encompassing pre-school to the high school level and are designed to promote and guide families in working together to create an emergency plan. Many of the schools conduct fire station tours during the month of October where students are introduced to our firefighters and are shown all the equipment utilized by the department. Throughout the year, the Fire Prevention Division participates in numerous events focusing on the elderly in our community. These programs revolve around safety in the home by not only providing reading materials, but also by installing smoke detectors free of charge. Many distributors of these safety materials were identified and contacted. Several of them stated that their material was available for non-English speaking residents, but only in Spanish.

In an effort to determine how many languages are indeed spoken in the City of Biloxi, a meeting was held with local organizations that have contact with different ethnic groups. It was discovered during this meeting that the main languages represented in the city other than English are Vietnamese and Spanish. There are some "seasonal" languages such as Russian, represented by workers temporarily employed for tourist season or by the casinos for various shows. The author believes that further research is required to get a more accurate account of languages represented in Biloxi.

As previously discussed, a questionnaire was disseminated within the BFD to gather data concerning encounters between personnel and residents who spoke little or no English during emergency and non-emergency situations. This survey can be found in Appendix C. Of the 38 officers polled, 22 completed and returned the survey. Of the responding officers, 82% represented stations in the south district while only 18% represented stations in the north district of the department.

The first two questions on the survey were intended to ascertain if any of the officers had experienced a communication barrier during emergency responses, or in their day to day operations; and if so, what those barriers were. Of the 22 officers who responded, 91% related encounters in which language was a barrier. No questions were posed to determine the exact languages encountered by the officers. Concluding from the research, it is the author's assumption that the two main non-English languages encountered would be Vietnamese and Spanish. While 91% of the officers felt that the primary barrier was language, 54% felt that the fear of authority was a secondary barrier. Cultural differences were noted also under primary and secondary barriers.

The next two questions focused on identifying any resources officers were aware of that would assist them in overcoming the language barrier. Sixty-eight percent of the officers were not aware of any resources that were provided by the BFD or the City of Biloxi to assist them with communication. As discussed earlier, those officers that did give examples of resources noted members of the fire and police department, translators, and computer programs as available resources. In reality, however, none of these resources are readily available at all times. Sixty-eight percent of respondents were not aware of any organization that provided training in

other languages, while a small number of respondents believed church groups and schools could provide such training.

The survey's final two questions focused on an officer's ability to speak another language. Of those responding, 68% stated that they had no formal training in speaking another language. The majority of officers responding "yes" stated that they had learned a language while in school but were not currently adept at speaking it, while an overwhelming 95% could not speak any language other than English.

Based on the results of this questionnaire, it is clear that there are currently no identifiable translation resources that are readily available to BFD personnel during emergency or non-emergency incidents. None of those resources identified by respondents in the questionnaire could be considered valid or effective. The research findings of the author show that the only available translation resource for the BFD would be the Language Line accessed through the dispatch center.

An additional survey was distributed via e-mail to over 200 fire department representatives throughout the United States in an attempt to determine how they deal with residents who either speak no English or cannot speak it very well (See appendix A and B). Of this number, only 38 departments completed and returned the survey. The majority of the respondents reported that they served a population of more than 25,000 residents.

Twenty departments reported that the percentage of their population that did not speak English or spoke very little English was 5 % or less; seven of the departments reported that 7% to 10% fell into this category; and the remainder of the respondents reported that 11% to 30% spoke little or no English. Those departments reporting higher percentages were located in California, Florida, Virginia, New Mexico, North Carolina, and Texas.

Over 95% of the departments listed Spanish as the primary language other than English being spoken in their area. Coming in second was a mixture of Asian languages such as Vietnamese, Korean, Chinese, and Taiwanese. Other languages included Navajo, Russian, French, and German; and from the findings of this research, these particular languages appear to becoming more common throughout the nation.

About half of the responding departments reported that they had personnel who could speak other languages fluently, while the other half did not. Over 90% of the respondents stated that their departments did not actively recruit bi-lingual candidates for job positions. Moreover, only half of the departments had any written policies available to cover incidents involving non-English speaking residents. Of the respondents, 11 departments reported that they offered some form of basic language training for their personnel, and 13 departments provided multi-language field books to their firefighters. The majority of respondents were of the opinion that some form of field book would be beneficial for their crews.

Another question was included on the survey to identify departments that did provide risk reduction materials to their non-English speaking residents. Of responding departments, 17 reported that they offered risk reduction materials in languages other than English. The final question asked how department members communicated with non-English speaking residents. This question allowed the respondent to provide examples of tactics used or resources available, and some of the responses included:

- Call for a translator.
- Use non-verbal communication methods.
- Utilize a phone translation service.
- The use of field trained police or sheriff's officers.

- Generic field cards that provide basic words in other than English.
- Family members and friends who are on scene and speak English.
- Interpreter's from other agencies like the local hospitals.
- Picture translator and translator book.
- Do the best we can.

When discussing their own specific city's issues concerning language barriers, most of the departments noted Spanish to be the predominant non-English language. When describing their field guides and fire prevention materials, Spanish, again, was the language noted. This data further supports the author's findings that potential resources that could be purchased were generally only provided in Spanish.

### Discussion

The history of the City of Biloxi is similar to many of the other cities around this nation. The city's population began with a mixture of different languages and cultures. The seafood industry brought many migrant workers, such as Polish migrants from Baltimore, Slavonian immigrants, and Louisiana Cajuns, who provided the labor that laid the foundations (Schmidt, n.d., p. 1). The migratory trends of immigrant workers into the city have continued throughout Biloxi's 300 year history. The decline of the city's seafood industry gave way to the development of a thriving casino gaming industry with the subsequent increase in population, differing cultures, and languages.

Culture is defined as a system of customs and traditions, sometimes coupled with beliefs that influences or drives daily activities and methods of interaction (Grant & Hoover, 1994, p. 60). The traditions and beliefs of the diverse cultures located in the City of Biloxi can present challenges to the fire department when trying to provide emergency and non-emergency

services. Officers encountering a language or cultural barrier during emergency incidents, often find themselves in a potential life or death situation. In order to meet these challenges, it becomes crucial to stay ahead of the learning curve, planning to meet the challenges of the changing population (Grant & Hoover, 1994, p. 56).

In an interview with the *Sunherald* newspaper, Daniel Le, of the Boat People SOS reported that “About 9,500 Vietnamese-American refugees and their children live on the Mississippi Gulf Coast and at least 75 percent have difficulty communicating with essential service providers” (Loebenberg, 2012, para. 1). Le’s comments were echoed during a meeting held in early January 2012 between members representing local cultural groups and public safety personnel. Participants included representatives from the Boat People SOS, Catholic Diocese of Biloxi, Interfaith Disaster Task Force, and the American Red Cross. Much of the discussion was concentrated on understanding and establishing contact with new cultures in our area. Dr. Dung Ngo of the Boat People SOS group stated that “To work with culturally diverse population it is important to understand the cultural variables and historical influences of the population” (Loebenberg, 2012, para. 3).

Cultural dynamics within Biloxi are evident in a number of old and new small businesses in Biloxi, many of which are owned and operated by immigrants. These entrepreneurs came to the city and were quite successful in starting a new life while still steadfastly adhering to their cultural beliefs and language. As a consequence, these individuals often do not have the same educational background in fire safety and awareness as English-speaking residents (Grant & Hoover, 1994, p. 55). Other ethnic residents with little or no education live below poverty level and often reside in lower income housing. “Virtually every study of Socioeconomic



Characteristics has shown that lower levels of income are either directly or indirectly tied to an increased risk of fire” (MCFCA, 2001).

New immigrant populations often retain and use their native language while assimilating into the culture of the United States (Grant & Hoover, 1994, p. 55). There are certain local organizations that provide aid to immigrants in overcoming the many hurdles of becoming part of a new community, and they can also assist public safety organizations in handling cultural barriers. Leaders of local religious organizations, as well as non-profit organizations like the Red Cross, can provide valuable information in establishing effective contact and understanding of new minorities and their cultures. While children generally learn English in the schools, the parents--and especially grandparents--may never learn (Grant & Hoover, 1994, p. 58). Many of these children become bi-lingual while still maintaining their specific cultural beliefs, which can be an asset to public safety.

Interviews with members of both Spanish and Vietnamese groups located in the City of Biloxi helped to identify reasons for cultural barriers, many of which have been discussed in the research literature. The core finding is that non-English-speaking citizens do not understand the fire safety messages transmitted from fire departments whose primary language and culture is English based (MCFCA, 2001, p. 1). Such fire departments may alienate a segment of the community by being insensitive and unaware of an effective means of communicating (Grant & Hoover, 1994, p. 60). The BFD is currently in this category of departments. The questionnaire presented to BFD officers, as well as interviews conducted with city public safety employees, accentuated the fact that as a public safety organization we do not fully comprehend the special needs of the community which we serve.

### Recommendations

In the beginning stages of this research project, the author could find no major incident that had occurred in the City of Biloxi involving non-English speaking residents. It was not until very recently that one such major incident did occur, involving two little girls who were trapped inside of a burning structure. After reviewing the audio tapes, it became obvious that a definite language barrier existed in this incident, from the initial 911 call to the dispatchers, up to the time that the crews found out there were two little girls trapped inside the house. The caller repeatedly responded “no” to the dispatcher’s question of “Is there anyone in the structure?” The caller was excited and scared which made it even more difficult for the dispatcher to understand him and for him to comprehend the question. The same situation occurred on-scene; communications between fire officers and occupants were difficult if not impossible due to excitement and a language barrier. The BFD has two personnel who can speak Spanish; one of those happened to be on-scene that day and was able to communicate with the residents. Crews quickly reacted to the information of trapped victims and were able to rescue the little girls.

This particular incident, combined with this paper’s research, illustrates the very critical need for the BFD to develop a plan to communicate with the non-English speaking residents who live, work, and play in the City of Biloxi. From the results of research data, it is the author’s conclusion that the BFD and the city lack the effective resources to overcome ethnically-related communication obstacles. The only reliable resource currently utilized by public safety is the Language Line at the dispatch center. Although the police department has some officers who are able to speak Spanish, they are not readily available to the fire department as a resource. Therefore, the BFD must develop a comprehensive plan that would identify specific needs of the ethnic populations and implement goals to insure an effective resolution.

Goals should focus on first identifying the new communities within the city and to address the immediate needs of those groups. BFD officers should be educated about the resources that are available to them now. One resource--the Language Line--may present a slight time delay, but it still provides a means to communicate during emergency and non-emergency situations. Making use of police officers that have been trained in emergency communications with non-English speaking residents is another resource.

Overall, efforts must be concentrated on providing language and cultural training for all fire officers. In order to meet the challenges of an ever-changing, cultural landscape, fire officers must stay ahead of the learning curve (Grant & Hoover, 1994, p. 56). The department must endeavor to create a positive working relationship with the organizations throughout the city that support these new communities.

The following recommendations are presented as consideration for long-term goals for the BFD:

- The BFD must make every effort to identify the different cultures located throughout the City of Biloxi. This can be accomplished by making contact with the organizations that provide assistance to these new diverse communities and creating a partnership with them.
- The BFD needs to develop and maintain departmental guidelines pertaining to language barrier issues. These guidelines should cover the procedures and resources available for emergency and non-emergency incidents.
- A BFD liaison officer should be created to work with the non-English speaking community leaders to insure the needs of these diverse communities are met.

- Community awareness and language training should be conducted on an annual basis with all officers of the BFD. This training should focus on the needs of the community as they relate to the fire service.
- Quarterly meetings should be conducted between city officials, fire department officials, and community leaders.
- More research should be conducted to locate or create risk reduction materials that can be utilized by the non-English speaking communities. The materials used should be reviewed and approved by representatives of the communities.
- The BFD should make every effort to insure that recruiting practices involve members of these diverse communities. This will insure successful integration of the department and the community which it serves.

Although it is a challenge, it is important for fire departments to progress in an effort to reach out to these new members of the community and help them prepare for an emergency (Grant & Hoover, 1994, p. 59). Our Mission Statement affirms that “Through preparation, dedication, and professionalism, the Biloxi Fire Department strives to protect and enhance the lives and property of our citizens and visitors.” It is our responsibility to make every effort to understand and work within other cultures as they do in ours. Only by the proactive approach of searching for effective resources, education, and training, can the BFD aspire to becoming a good steward of its community.

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## Appendix A

Dear Sir or Madam:

My name is Kirk Noffsinger, and I am the Assistant Chief of the Biloxi Fire Department in Mississippi. I am currently enrolled in the Executive Fire Officer's Program at the National Fire Academy and have recently completed my second year class--Executive Analysis of Community Risk Reduction. A component of each class requires that an applied research project be completed for successful fulfillment of the course.

Due to the aftermath of Hurricane Katrina in 2005, the City of Biloxi has experienced a large influx of migrant workers, many of which speak very little or no English at all. This situation presents a number of hazards; not only for the non-English speaking resident, but for our emergency responders as well.

I have attached a short questionnaire in pdf format. I ask that you, or your designee, please take a few moments to fill it out and follow the directions given to return it to me via e-mail. It is my hope that the data you provide will assist me in completing my project.

Be assured that no departmental or personal information will be used in my paper and will be kept strictly confidential.

I would like to thank you in advance for all your assistance.

Kirk Noffsinger

Assistant Chief Biloxi Fire Department

## Appendix B

In an effort to prevent duplication of responses from the same department, I request that you include your department information. All the information provided will be kept confidential and no departmental or personal information will be used in my research.

Department Name:

Contact Name:

Phone Number

1. What is your estimated population?

Under 25,000

25,000 - 99,999

100,000 - 249,999

250,000 - 499,999 Over 500,000

2. What estimated percentage of your population does not speak English or speaks very little English?

3. Please list the non-English languages that are spoken in your area, if none leave blank.

4. Does your department have on-duty personnel who are fluent in other languages?

Yes

No

Don't Know

5. Does your department actively recruit bilingual employees?

Yes

No

Don't Know

6. Does your department have any written policies or procedures for dealing with non-English speaking residents / visitors?

Yes

No

Don't Know

7. Does your department provide some form of basic training to your personnel for communication with non-English speaking residents / visitors?

Yes

No

Don't Know

8. Does your department provide its members any type of field book or quick reference cards/guide that would assist them in communications with non-English speaking residents / visitors?

Yes

No

Don't Know

9. If your department does not provide the items listed in question #8, do you feel items of this type would be beneficial to your department personnel?

Yes

No

Don't Know

10. If you answered "No" to questions 4 - 8, how do you deal with incidents involving non-English speaking residents / visitors?

11. Does your department distribute risk reduction materials (information) in any other language than English?

Yes

No

Don't Know

## Appendix C

## Biloxi Fire Department Survey

Thank you for taking the time to fill out this questionnaire. The information you provide will hopefully help me to make some positive changes in our department. The questions relate to both emergency and non-emergency activities. Please provide as much information as you can and only choose one answer per question. I have provided a space for you to enter your name, this is purely voluntary!

Again, thank you for your help and when you have completed the survey press the "Submit by Email" button at the bottom of the survey.

Name: \_\_\_\_\_ Assigned Run Area: \_\_\_\_\_

1. During emergency responses and day to day operations in your assigned run, have you ever experienced a communication barrier with any citizens or visitors?

Yes

No

2. What do you consider to be the main barriers that you face when communicating with non-English speaking residents/visitors? If you don't feel there are any barriers, leave the selections blank.

Primary: \_\_\_\_\_ Secondary: \_\_\_\_\_

3. Are you aware of any resources that are available to you through the Biloxi Fire Department or the City of Biloxi to help you deal with non-English speaking residents?

Yes

If yes, please list: \_\_\_\_\_

No

4. Are you aware of any outside organizations that have or will provided classes in other languages?

Yes

If yes, please list: \_\_\_\_\_

No

5. Have you had any training in speaking another language?

Yes

If yes, please list: \_\_\_\_\_

No

6. Do you currently speak any other language fluently?

Yes

If yes, please list: \_\_\_\_\_

No